Serial No. 10/037,590

LISTING OF THE CLAIMS

1   1. (Currently Amended) A method for doing call classification

2   on a call to a destination endpoint, comprising the steps of:

3   receiving audio information from the destination endpoint;

4   analyzing received audio information for words using automatic

5   speech recognition; and

6   determining the call classification from the analyzed words

7   where the call classification specifies at least one of the endpoint is busy

8   or the call is being redirected.

1   2. (Original) The method of claim 1 wherein the analyzed

2   words are formed as phrases.

1   3. (Original) The method of claim 1 wherein the step of

2   analyzing comprises performing front-end feature extraction on the

3   received audio information to produce a full feature vector.

1   4. (Original) The method of claim 3 wherein the step of

2   analyzing further comprises computing log likelihood probability from the

3   full feature vector.

1   5. (Original) The method of claim 4 wherein the step of

2   analyzing further comprises updating a dynamic programming network

3   used in the step of analyzing in response to the computed log likelihood

4   probability.

-2-

Serial No. 10/037,590

1   6. (Original) The method of claim 5 wherein the step of
2 updating comprises the step of executing an Viterbi process.

1   7. (Original) The method of claim 5 further comprises the step
2 of pruning the nodes in the dynamic programming network used in the
3 step of analyzing.

1   8. (Original) The method of claim 7 further comprises the step
2 of expanding a grammar network used in the step of analyzing.

1   9. (Original) The method of claim 8 further comprises the step
2 of performing grammar backtracking in response to the expanded
3 grammar network.

1   10. (Original) The method of claim 9 wherein the step of
2 backtracking comprises the step of executing another Viterbi process.

1   11. (Original) The method of claim 1 wherein the step of
2 determining comprises executing an inference engine in response to
3 analyzed words.

1   12. (Original) The method of claim 11 further comprises the
2 step of analyzing the audio information to detect tones; and
3   the step of determining further responsive to the detection of
4 tones for determining the call classification.

1   13. (Original) The method of claim 12 further comprises the
2 step of analyzing the audio information to identify energy in the audio
3 information; and

- 3 -

Serial No. 10/037,590

4   the step of determining further responsive to the identification of

5 energy for determining the call classification.

1   14. (Original) The method of claim 13 further comprises the

2 step of analyzing the audio information to identify zero crossings in the

3 audio information; and

4   the step of determining further responsive to the identification of

5 zero crossings for determining the call classification.

1   15. (Canceled)

1   16. (Canceled)

1   17. (Canceled)

1   18. (Canceled)

1   19. (Canceled)

1   20. (Canceled).

1   21. (Currently Amended) An apparatus for classifying a call to

2 a called destination endpoint, comprising:

3   a receiver for receiving audio information from the called

4 destination endpoint;

5   automatic speech recognizer for determining words in the

6 received audio information; and

7   an inference engine for classifying the call destination endpoint

8 in response to the determined words where the classifying specifies at

9 least one of the endpoint is busy or the call is being redirected.

- 4 -

Serial No. 10/037,590

1   22. (Original) The apparatus of claim 21 wherein the
2   determined words are formed as phrases.

1   23. (Original) The apparatus of claim 21 further comprises an
2   analyzer for determining another classification from the received audio
3   information.

1   24. (Original) The apparatus of claim 23 wherein the analyzer
2   is one of a tone detector, energy detector, or a zero crossings detector.

1   25. (Original) The apparatus of claim 24 wherein the automatic
2   speech recognizer is executing a Hidden Markov Model.

- 5 -